

CLAIMS

[1] A fuel injection valve comprising a valve assembly (14) having a valve portion (16); a valve seat member (3) having provided therein a conical valve seat (8) and a valve seat hole (7), the valve seat (8) cooperating with the valve portion (16), and the valve seat hole (7) communicating with the downstream end of the valve seat (8); an injector plate (10), the injector plate (10) being joined to the valve seat member (3); a radially extending and flat fuel diffusion chamber (43), the fuel diffusion chamber (43) being formed between the valve seat member (3) and the injector plate (10), and the downstream end of the valve seat hole (7) opening in a central part of the fuel diffusion chamber (43); and a plurality of fuel injection holes (11), the fuel injection holes (11) being bored in the injector plate (10) so as to open in the fuel diffusion chamber (43);

characterized in that the fuel injection holes (11) are arranged so as to be radially outwardly separated from the valve seat hole (7), and when the height of the fuel diffusion chamber (43) is t_1 and the length of the valve seat hole (7) is t_2 , $t_2/t_1 \geq 2$.

[2] The fuel injection valve according to Claim 1,

wherein the height of a section of the fuel diffusion chamber (43) that the fuel injection holes (11) face is 20 to 110 μm .

[3] The fuel injection valve according to either Claim 1 or 2,

wherein an angled section between the valve seat hole (7) and the fuel diffusion chamber (43) is given a chamfer (45).

[4] The fuel injection valve according to any one of Claims 1 to 3,

wherein the fuel diffusion chamber (43) is formed so that the height thereof decreases when going in a radially outward direction.